

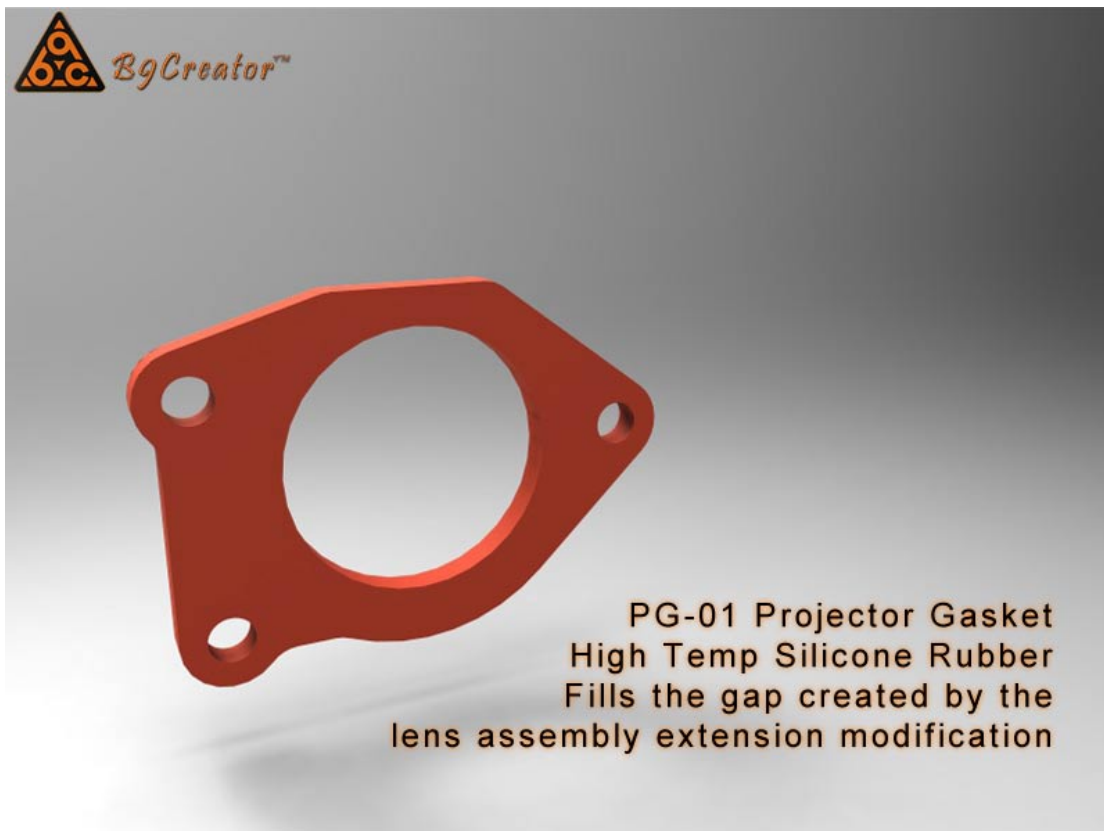


The B9Creator™

Copyright 2013 B9Creations, LLC All Rights Reserved

Visual Upgrade Guide, v1.0 to v1.1, OPTION 2

Step 1 - Install Dust Gasket

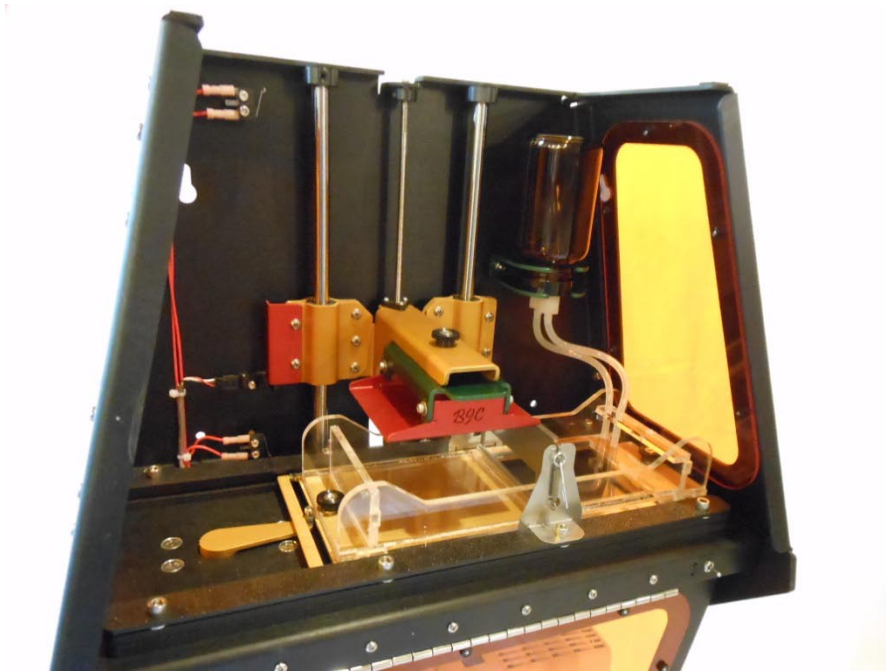


Locate the PG-01 Projector Gasket.

Install the gasket using the excellent instructions provided by Brian Pierce. Note that these instructions show a black, double layer gasket. Simply substitute the provided, single layer, thicker gasket shown above and follow the provided directions found here:

<http://b9creator.com/downloads/DustGasketInstructions.pdf>

Step 2 - Dissassembly



The B9Creator v1.0

The Option 2 Upgrade removes the resin bottle & holder, adds a deeper vat, upgrades the sweeper assembly, build table bracket, VAT slide rails, Z axis linear guide locking, and replaces the anti-wear lead screw nut with a Z Axis Decoupler mount/frame/nut system.



Remove the resin bottle and bracket. These parts will not be reused.



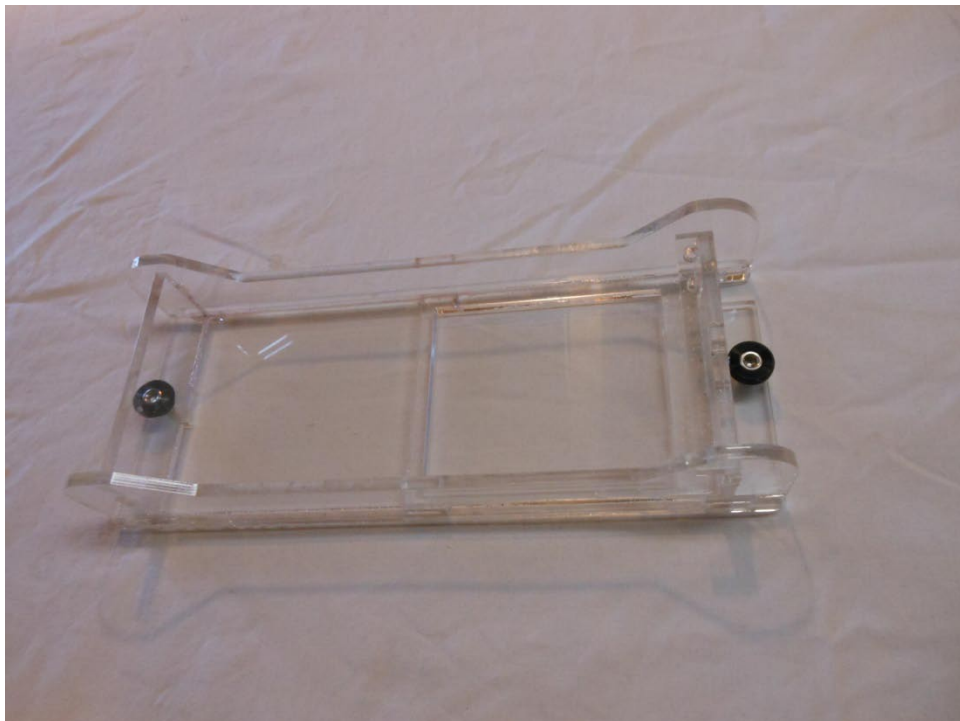
The bottle and bracket are removed.



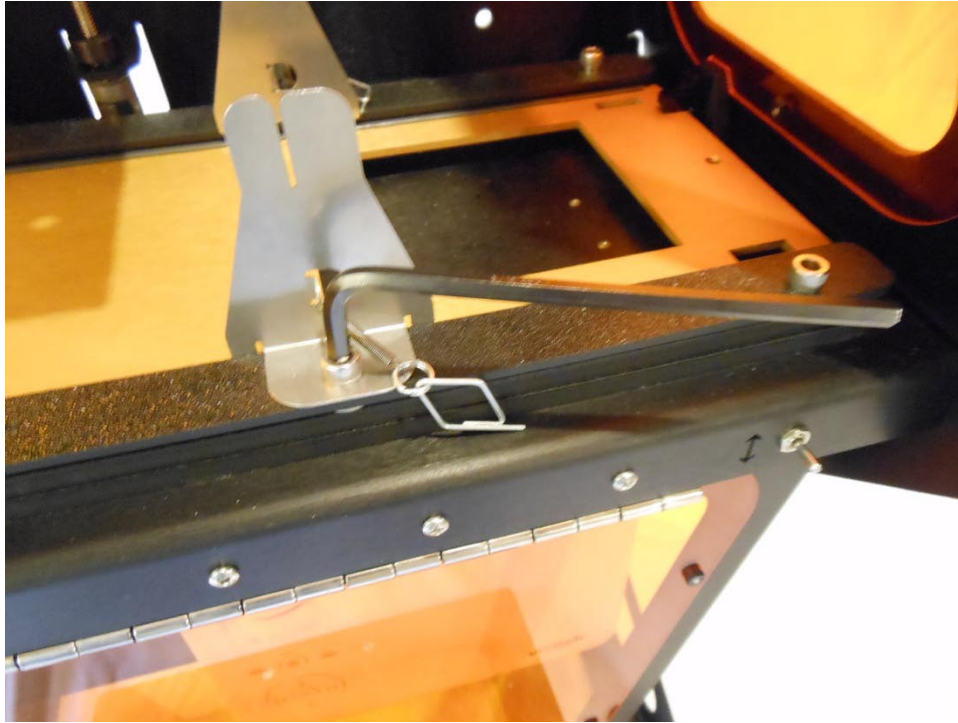
Remove the build table and bracket.



Remove the old sweeper, it will not be used again.



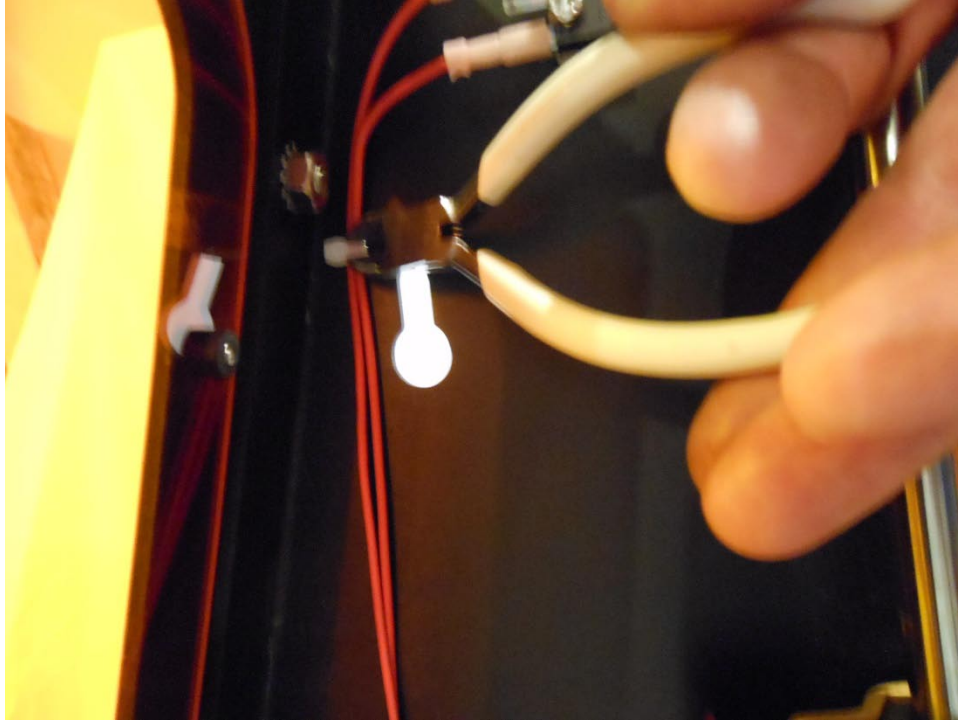
Remove the VAT, the old VAT may be used in the v1.1 machine if care is taken not to overfill.



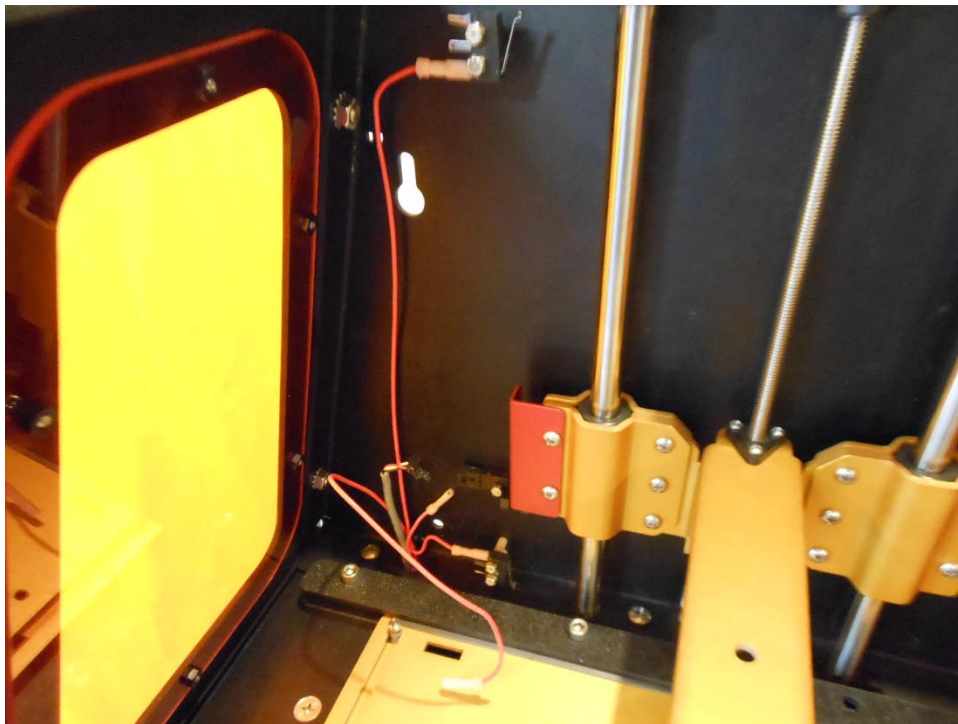
Remove the front and back sweeper bracket



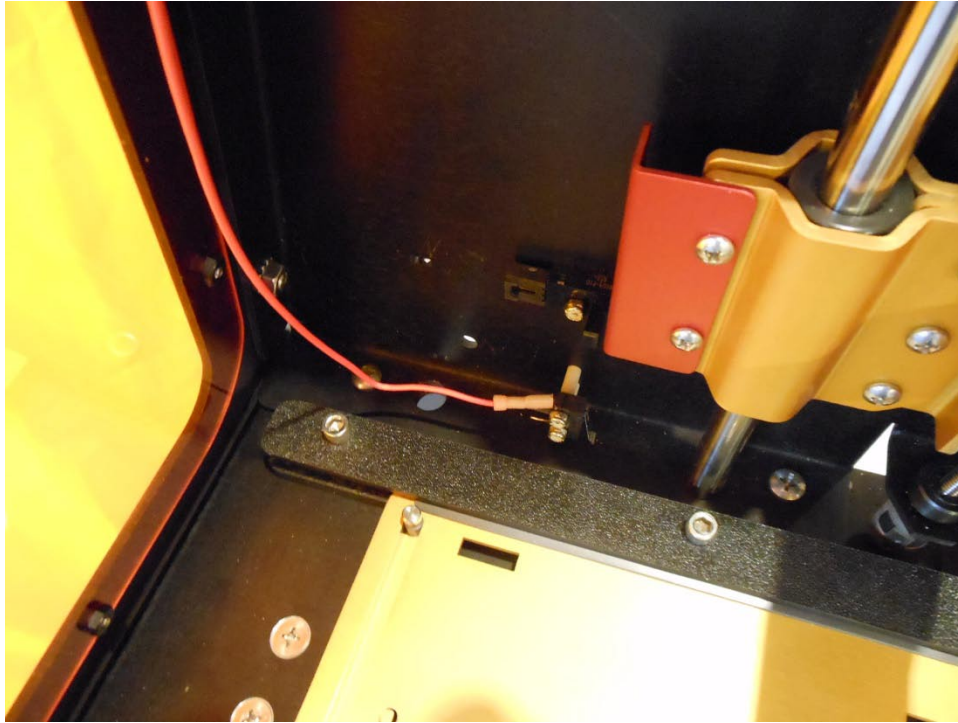
Carefully remove the spring, loop and handle from the brackets. Keep the spring, loop and handles as they will be needed during reassembly. The brackets will not be used again.



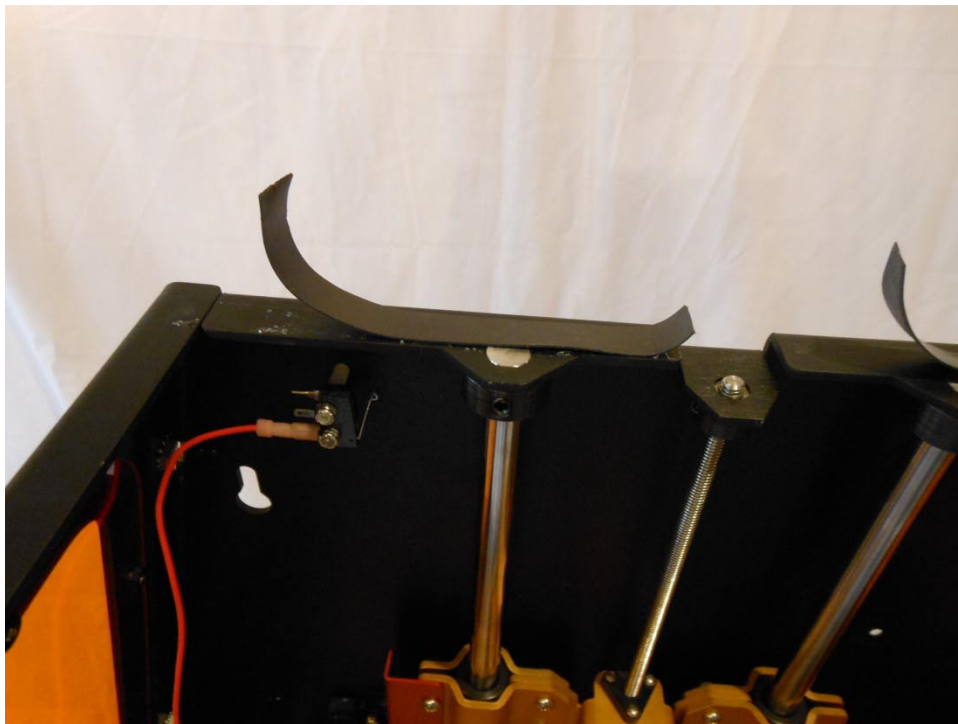
Snip and remove the 3 "Zip Ties" that secure the wires to the back of the Z Axis backplane.



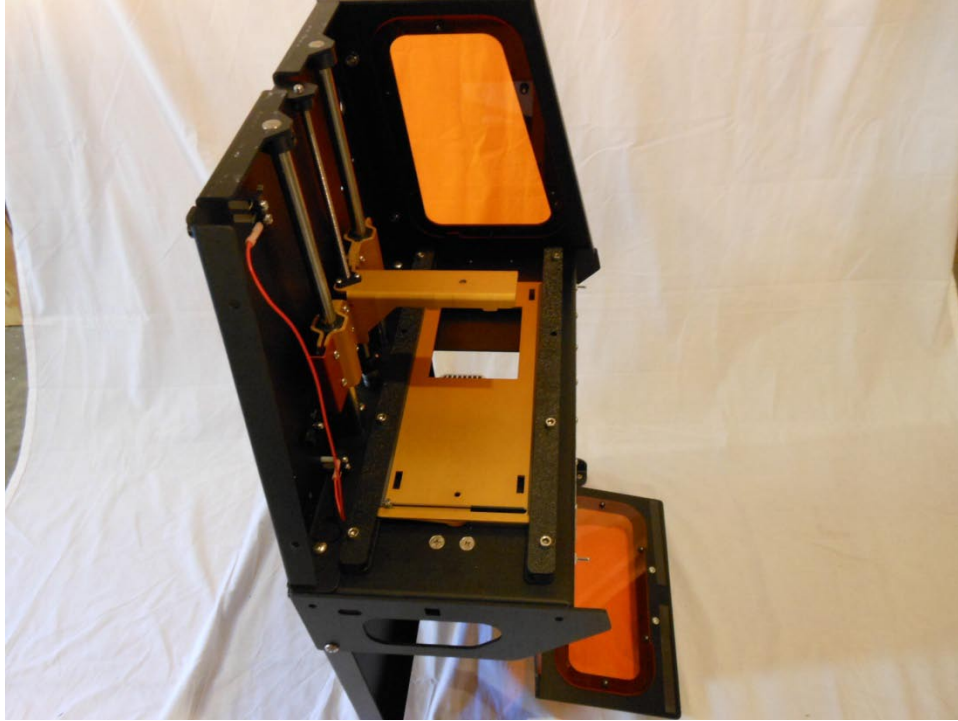
The Zip ties have been removed and the top wire on the top limit switch, the bottom wire on the bottom limit switch and the optical sensor cable have all been unplugged.



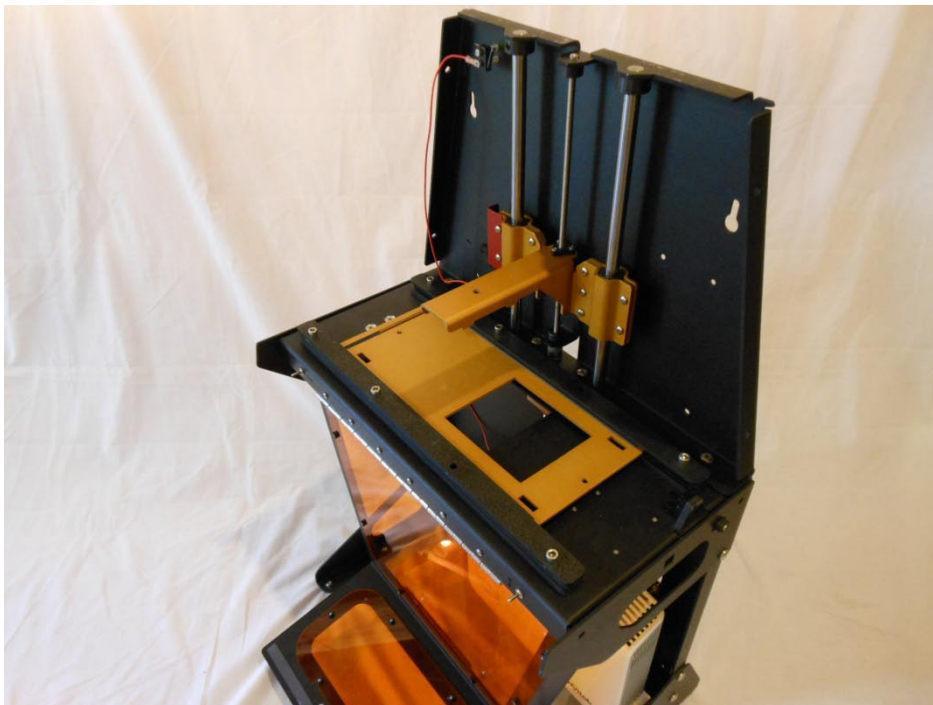
The unplugged wires and cable have been pushed back through their access hole.



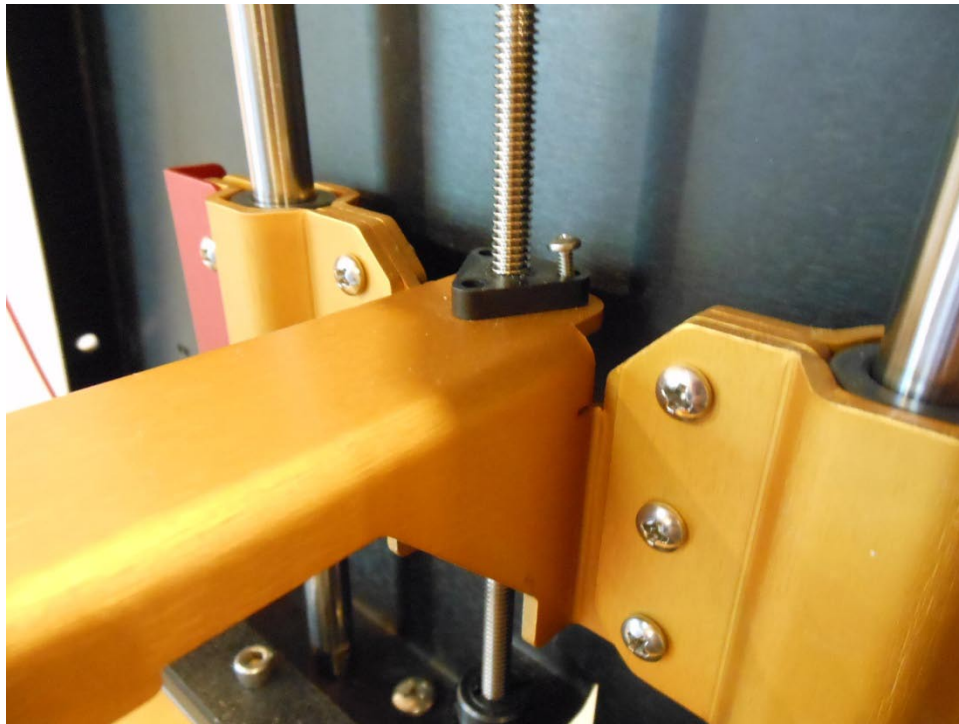
Remove the magnetic strips from the top of the Z Axis backplane. Do not remove the strips on the Hatch.



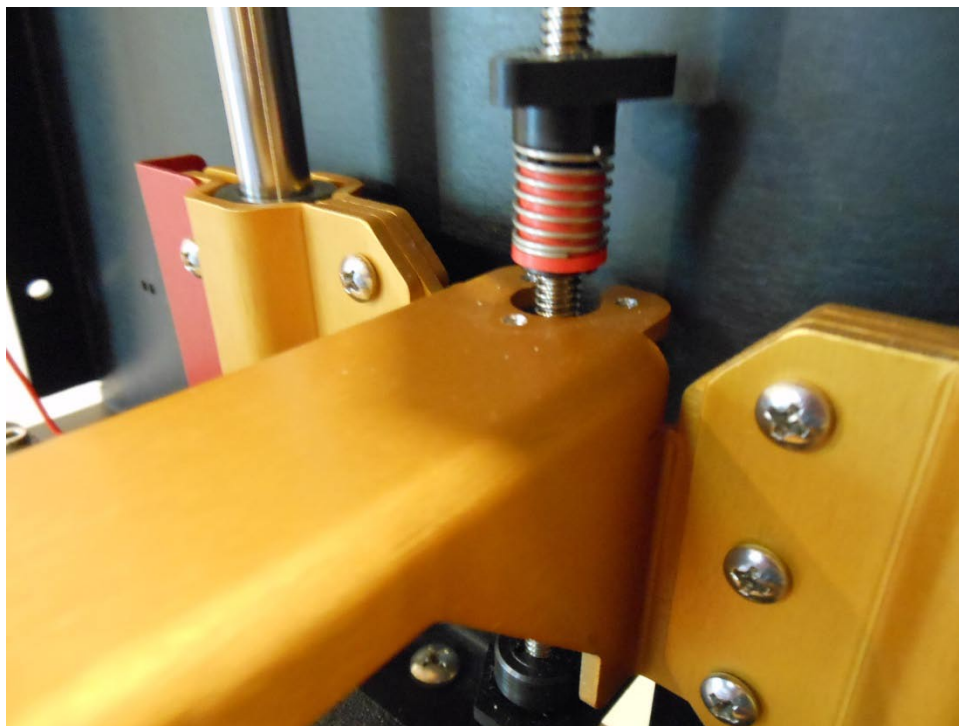
Remove the side panels. Note that there are 2 long screws and 2 slightly shorter screws holding each side panel in place. The two longer screws are from the two lower holes.



Both side panels removed. It is not necessary to remove the Hatch, but care must be taken to ensure it is supported during the rest of the disassembly. Temporarily replacing the two lower side panel screws will help with this.



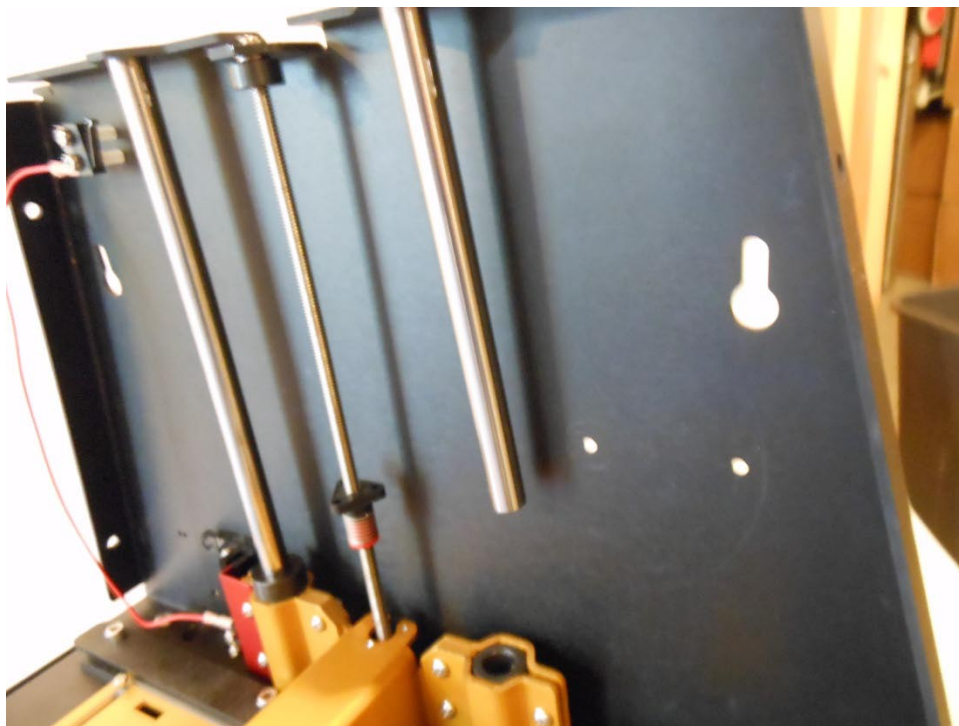
Remove the three screws holding the anti-wear lead screw nut.



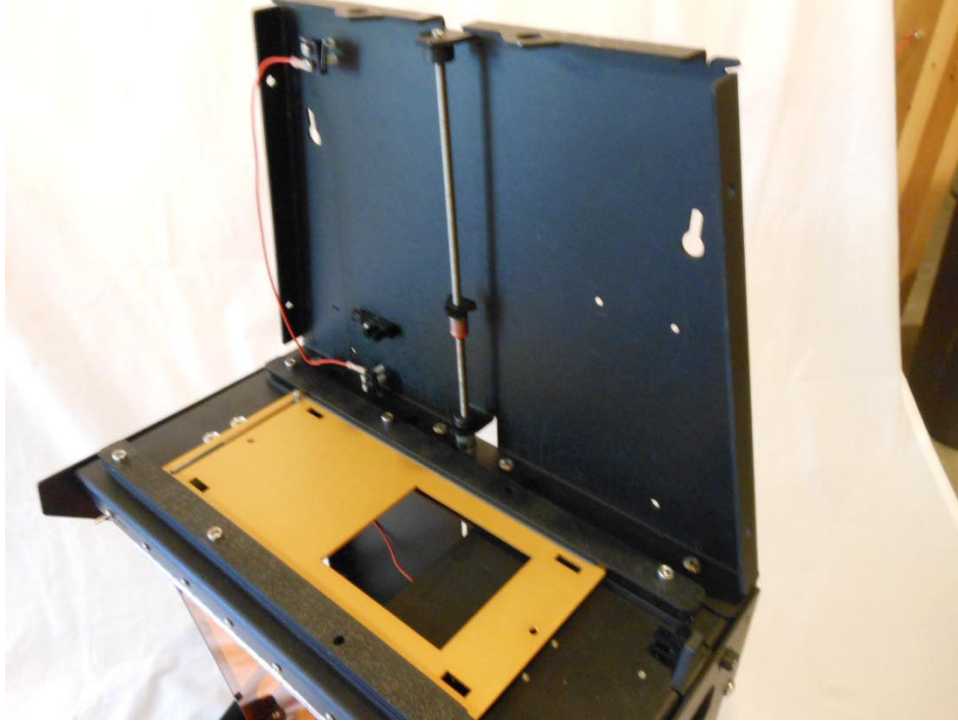
Lower the build table Arm to clear the nut.



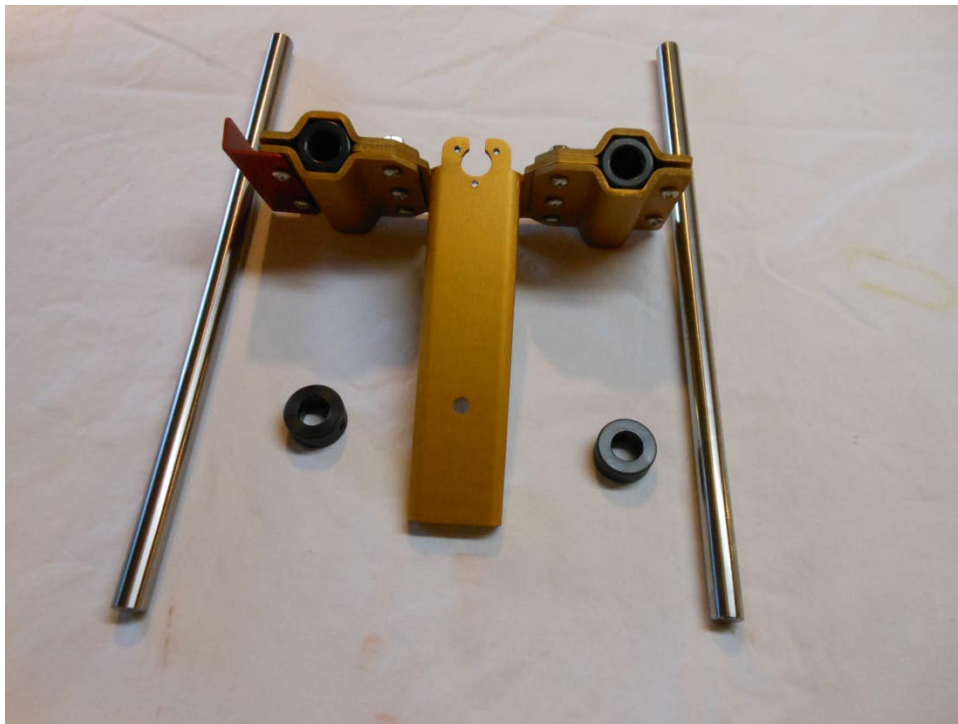
Loosen the linear guide rod collars.



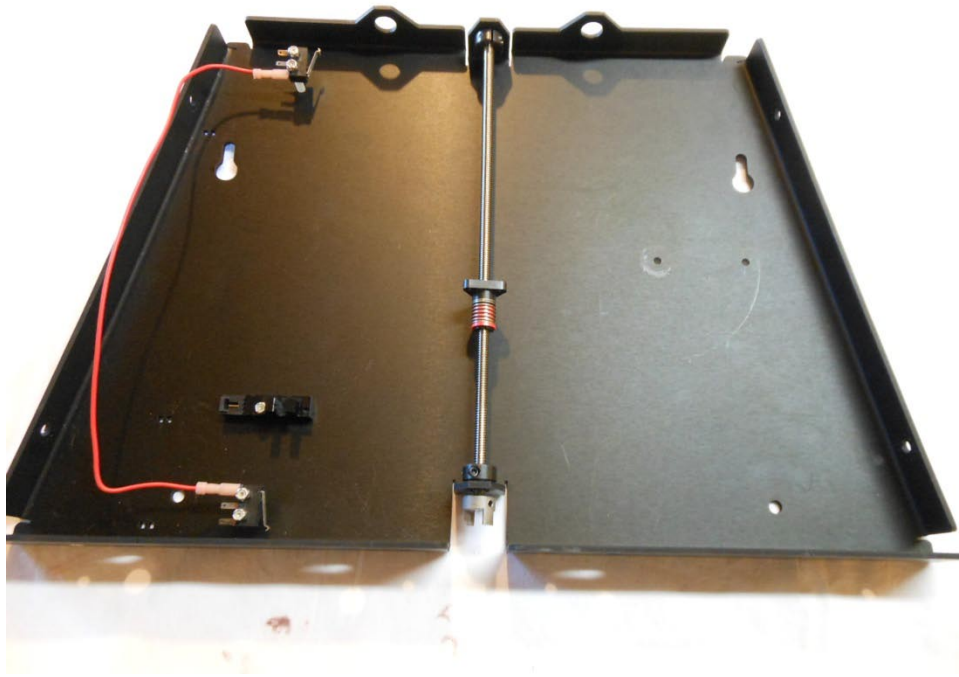
Remove the linear guide rods.



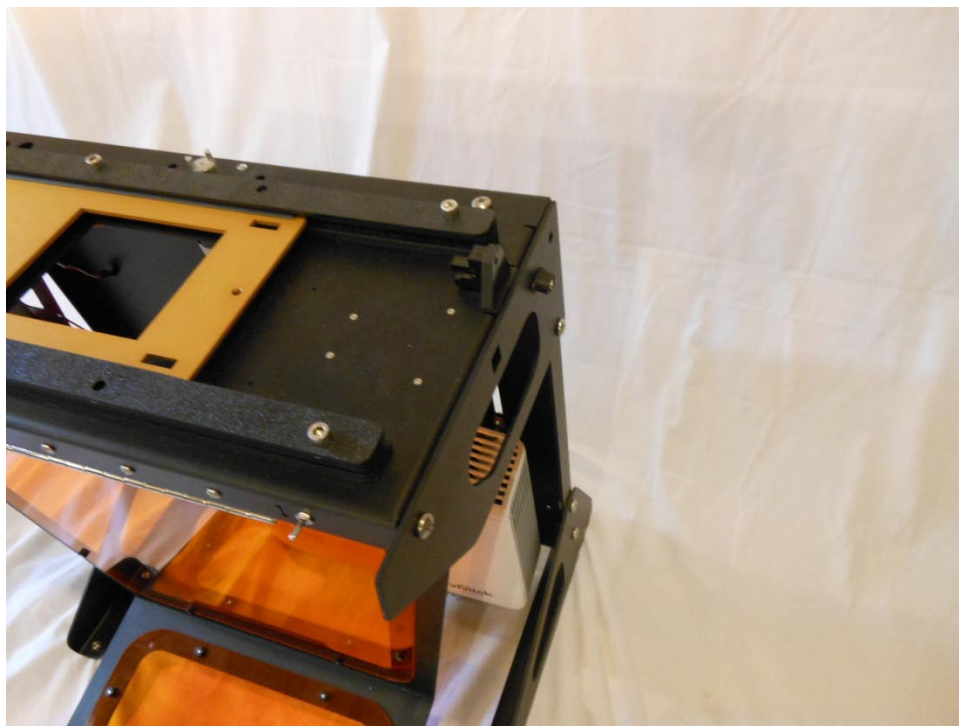
Guides and Arm removed.



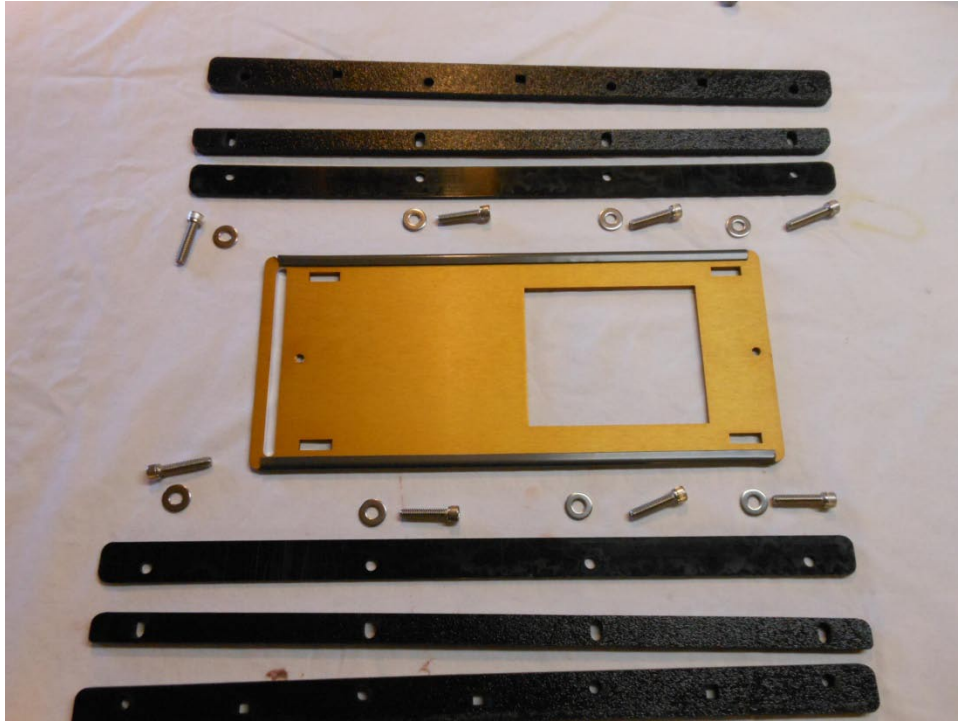
The removed guide Rods, Arm and collars. These 2 collars, plus the 2 included in the upgrade kit will all be used during reassembly.



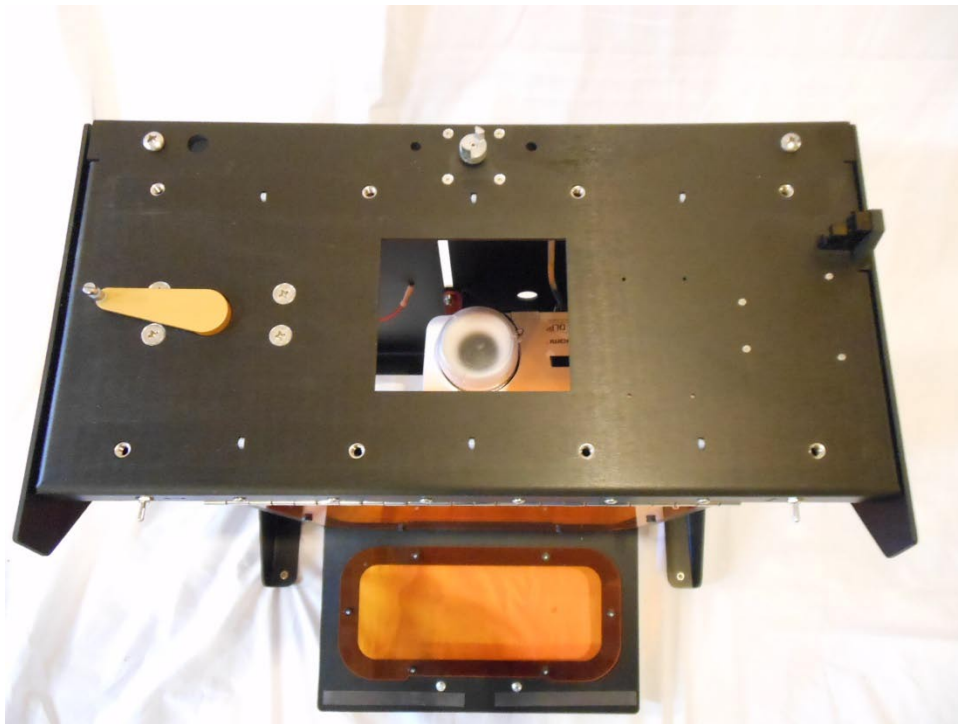
Remove the 4 screws holding the Z Axis backplane in place and remove the backplane.



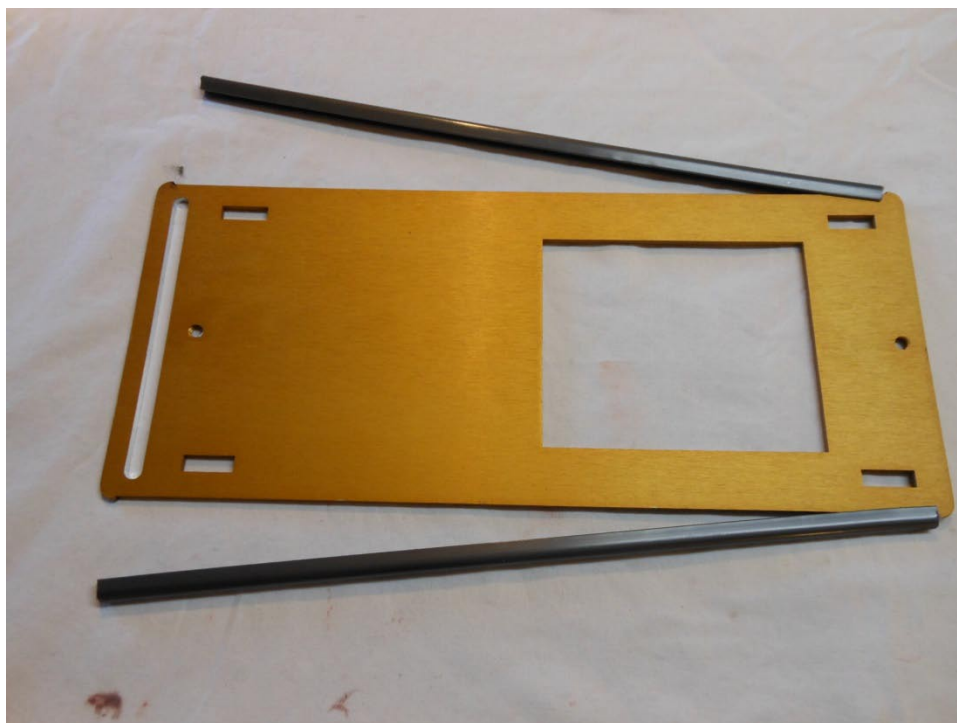
Temporarily use the screws to hold the lower section together.



Remove the slide and rail system.



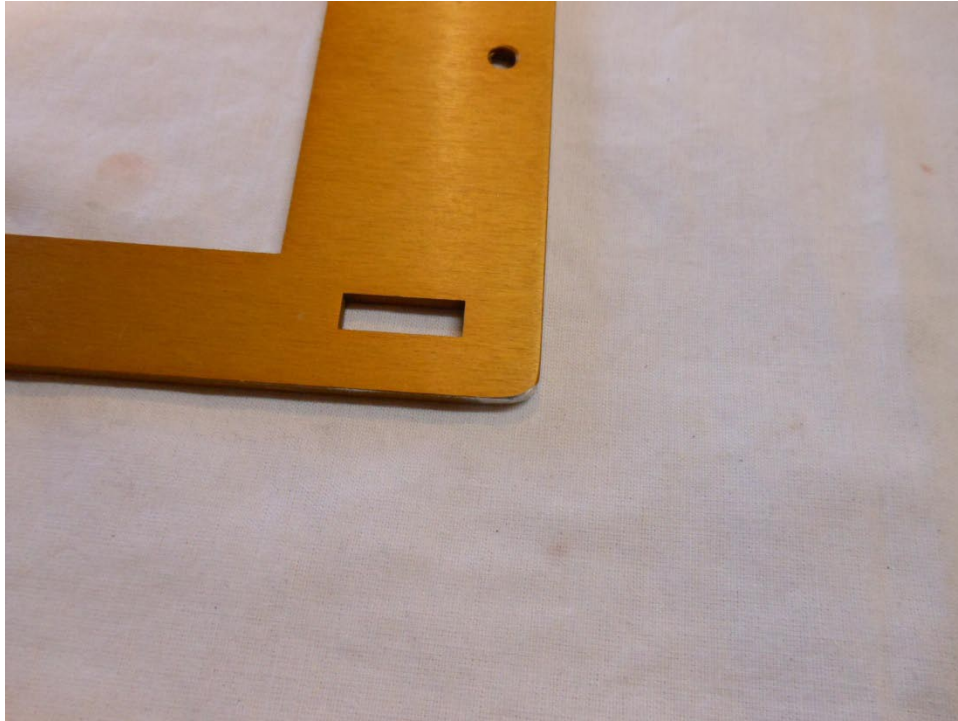
Slide and rail removed.



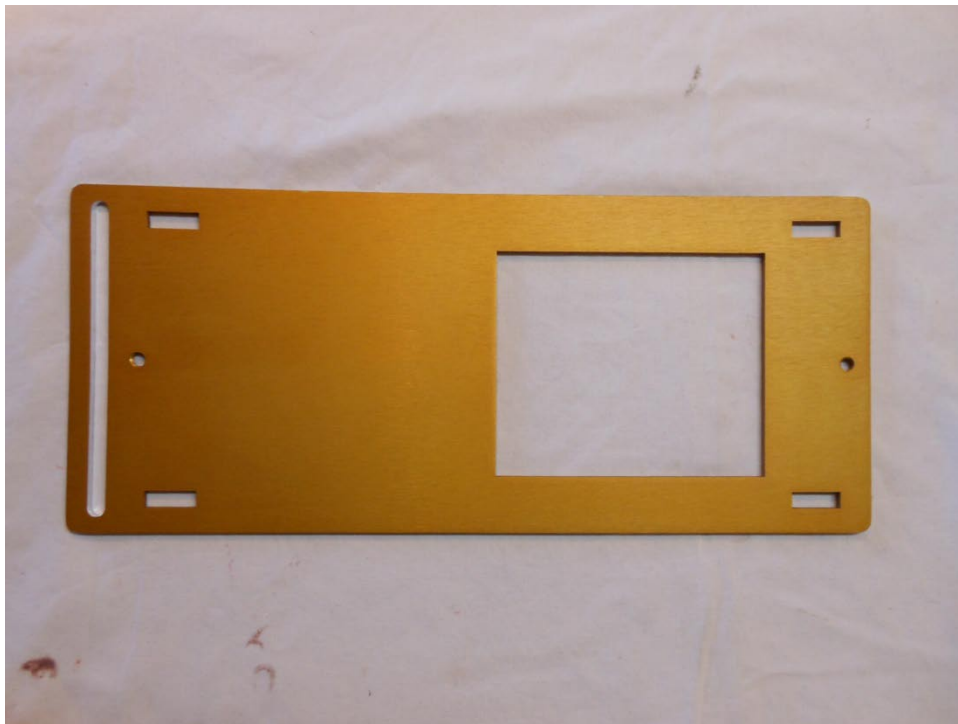
Remove the nylon glides from the slide table, they will not be reused.



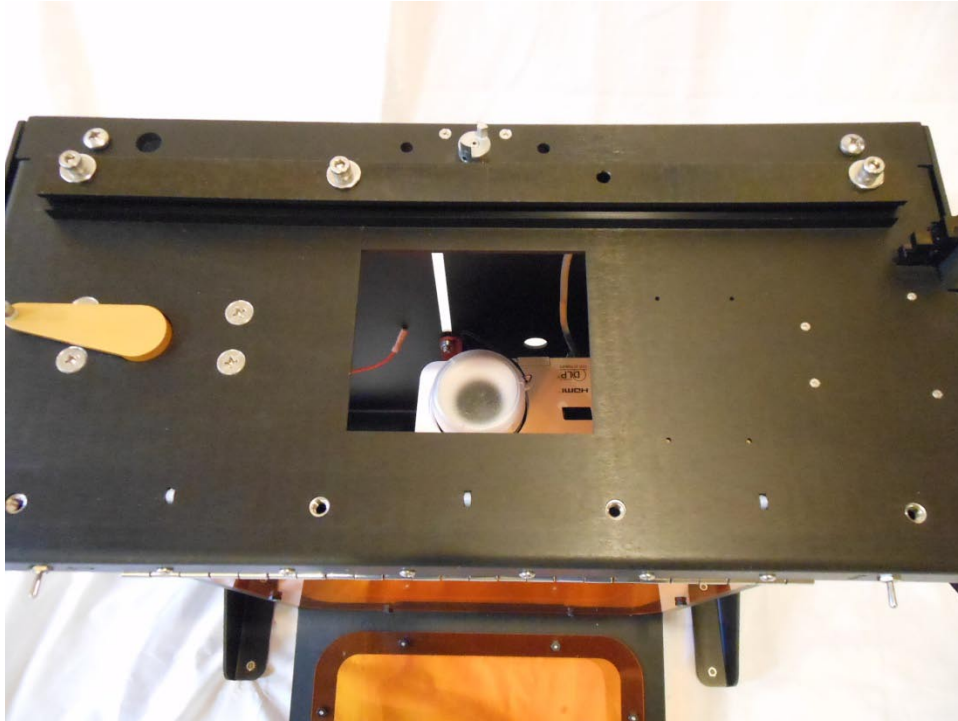
Using a file, remove the four "Points" from your slide table.



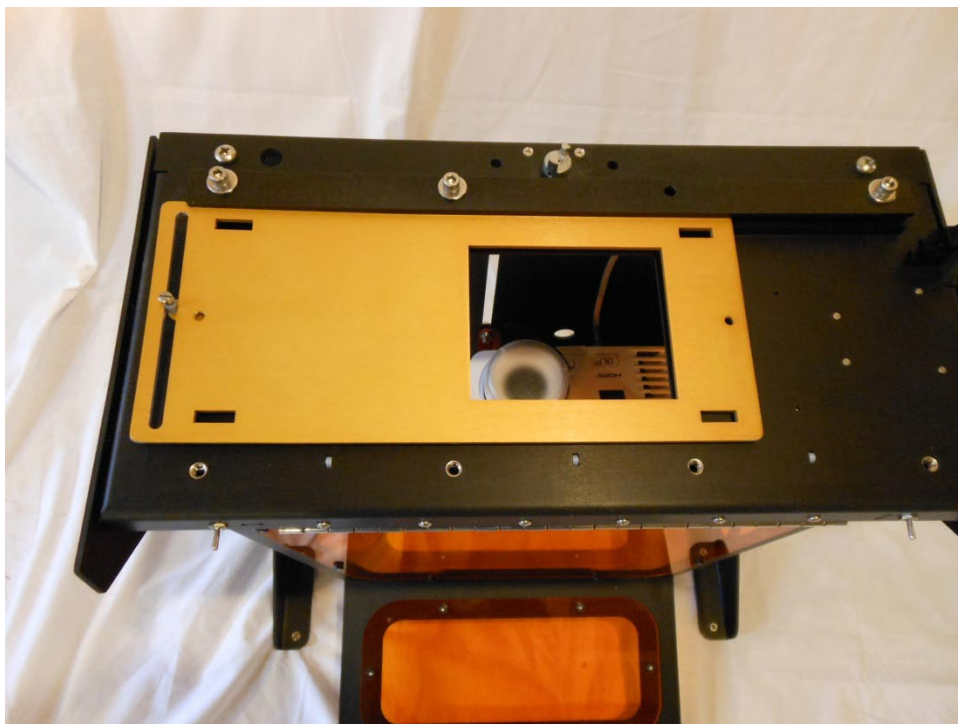
Corner after the "Point" has been filed off and rounded.



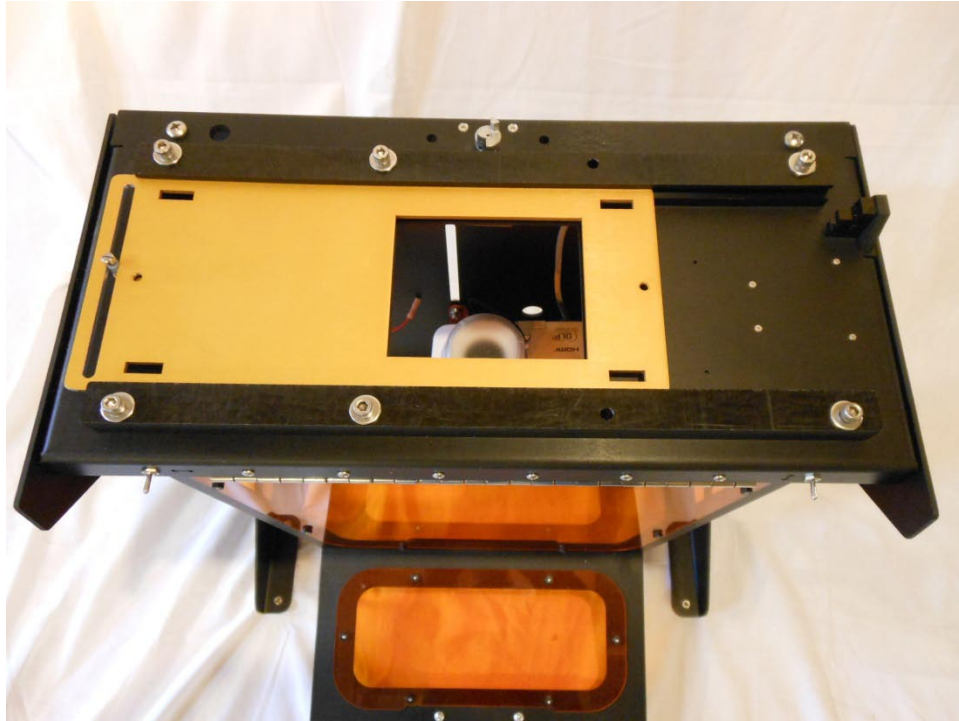
All four corners filed and rounded. Note: your slide may be RED anodized vs this GOLD one, but they are the same shape.



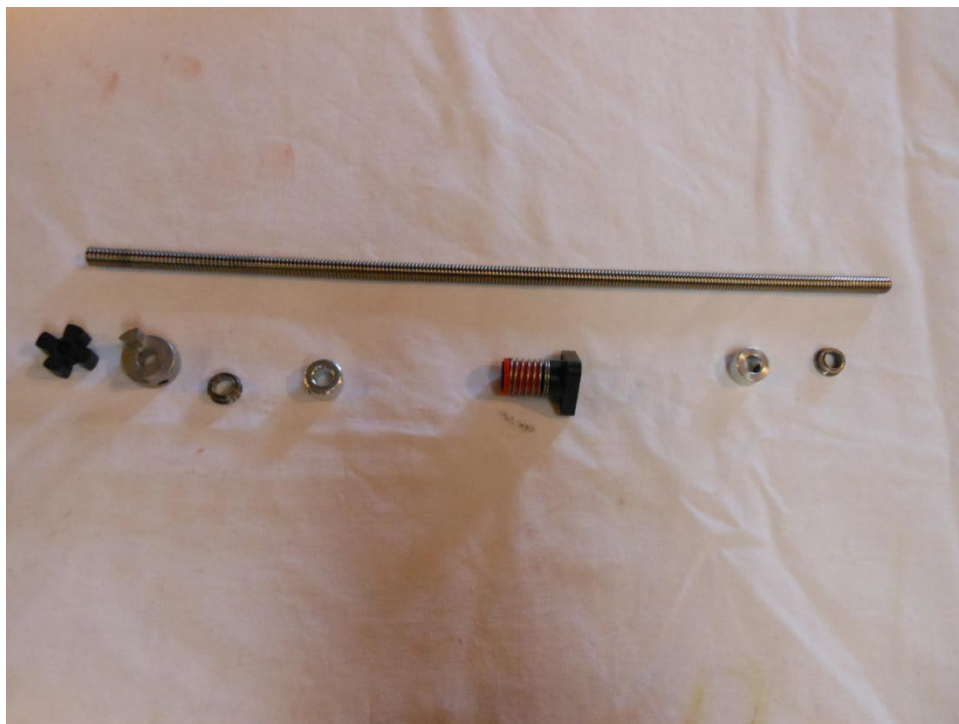
Attach the NEW delrin back rail as shown. The bracket nut & washer has been left off as we will attach the new rear sweeper bracket later.



Sit the modified table in the delrin track slot, make sure the X Motor arm engages the table slot.



Attach the NEW delrin front rail as shown. That completes the rail upgrade.



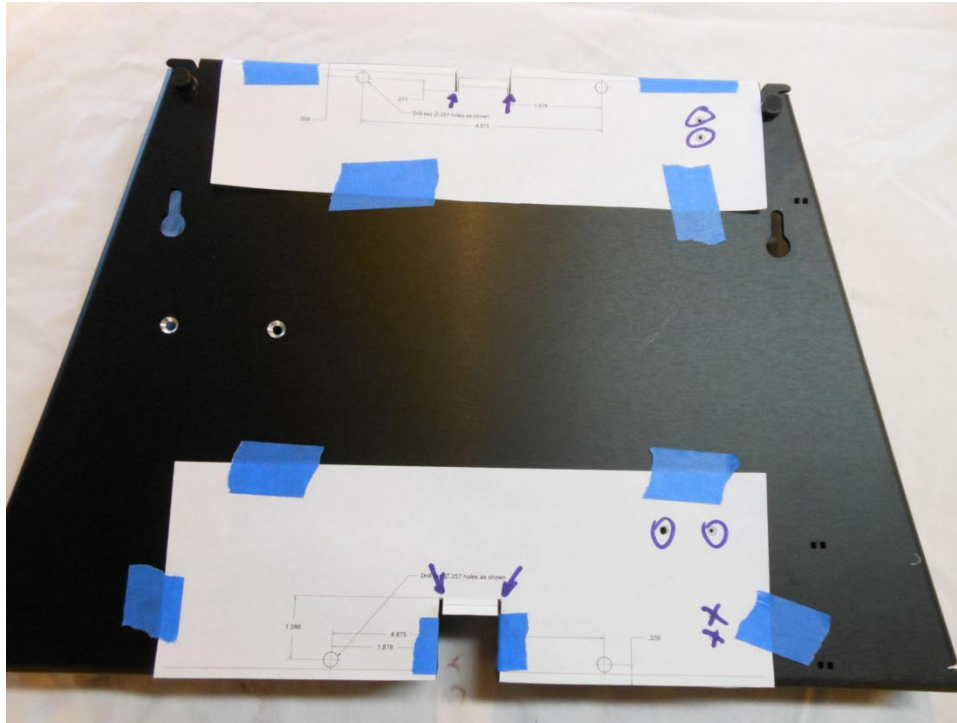
Remove the lead screw hardware from the Z Axis backplane. Everything except the anti-wear nut will be reused.



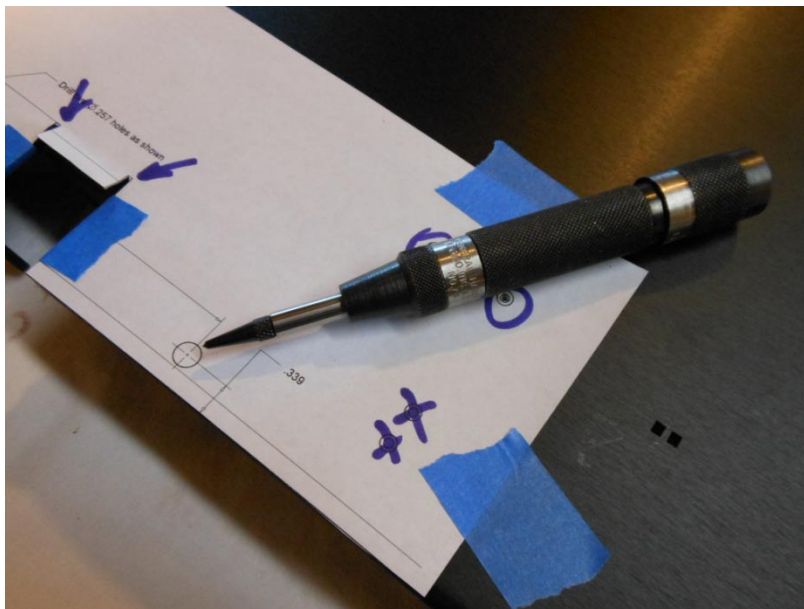
Remove the remaining limit switches and optical sensor hardware.



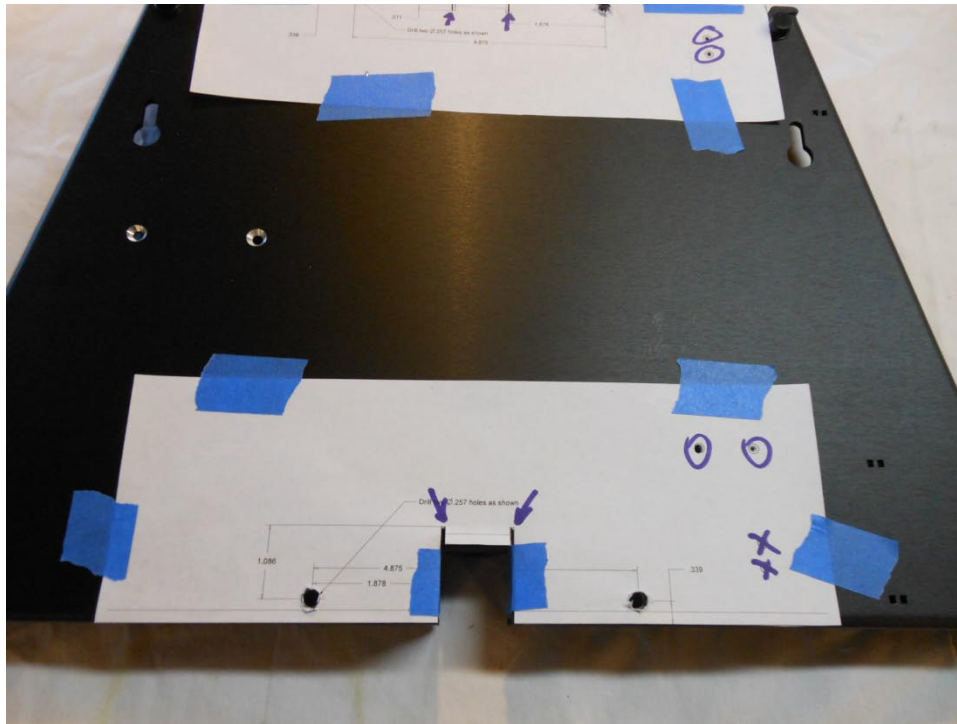
This removed hardware will be reused.



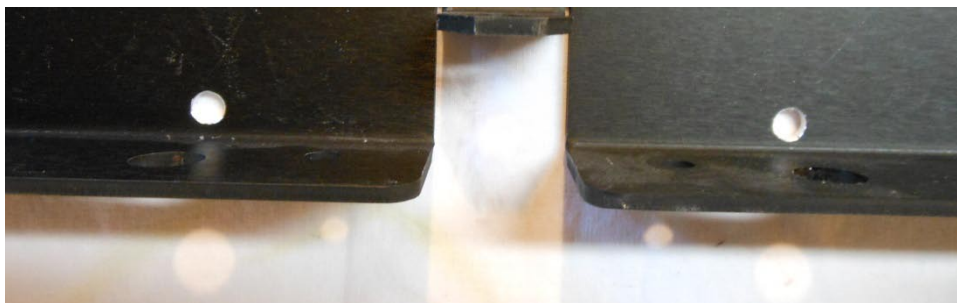
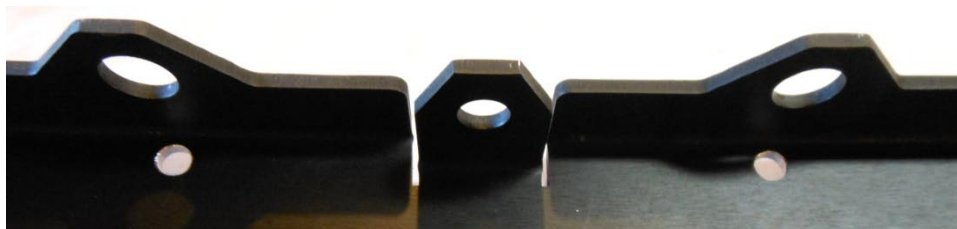
Download the drilling template pdf files. [UpgradeOption2DrillingGuide.pdf](#) Print these using "Actual Size" setting. Verify they printed the correct size and cut them out to aid in locating where to drill. Arrows and circles indicate areas to help with template alignment.



Use a punch to mark the center of the holes.



Drill 4 holes using a 0.257" dia. (Size F) drill. It's OK if these holes are a bit oversized.



All 4 holes drilled.

This completes the Z Axis Backplane modification, these parts will be used during normal v1.1 reassembly.



Disassemble the Z Table Arm. We will drill two holes in the Arm.



Used the template to determine hole placement, mark the center of the holes and drill with 11/64" bit.



Two new holes drilled.



Z Decoupler Mount attached with included hardware.



Top view showing Mount alignment



Reassemble the Table Arm. Note that Option 2 does not include a "stabilizer bar".

Step 3 - Reassembly

Complete the reassembly by referencing the following v1.1 assembly documents:

[Step 3 – Z Axis \(ZA-A\) Vertical Slide](#), [pdf version](#)

[Step 4 – Z Axis \(ZA-B\) Vertical Slide](#), [pdf version](#)

[Step 5 – Final Assembly 1 \(FA-A\)](#), [pdf version](#)

[Step 6 – Final Assembly 1 \(FA-A\)](#), [pdf version](#)

Finished!

Remember to recalibrate before printing.

Be sure to download the latest version of B9Creator software (v1.4 or greater).

To complete the upgrade you must run B9Creator software and perform the following actions:

Connect your power transformer and USB cord (the video cord is not needed for this operation).

In B9Creator, select File->B9Creator Terminal Utility...

In the B9Creator Terminal Utility Dialog Box, in the lower right corner, click in the "Send:" text box.

Type the following text (no quotes) "Y8135" and hit Enter.

This will reset the home position from the v1.0 value of 8985 to the v1.1 value of 8135. Failure to do this will likely result in the build table hitting the lower limit switch during the build table calibration.